AS ENCLOSED TO IPER

We claim:

1. A polymer of transition-metal-bridged units of the formula (I)

$$A = \begin{bmatrix} R & M_{0,5} \\ N & \end{bmatrix}_{m} Z_{p}$$
 (I)

where

A is an m-valent organic radical,

T independently of one another are O or NH,

Q independently of one another are CHR^1 - CH_2 where R^1 is H or optionally substituted C_{1-6} -alkyl,

R independently of one another are H, 2-pyridyl, 2-imidazolinyl, 2-imidazolyl, 2-thiazolyl, 2-thiazolyl, 2-pyridazyl, 2-pyrimidyl, carboxyl, carboxylic ester radical, carboxamide radical, carboxylate, phosphonate, where at least one of the radicals R is different from H,

$$M \qquad \text{ is Fe$^{2+}$, Fe$^{3+}$, Co$^{2+}$, Co$^{3+}$, Zn$^{2+}$, Ru$^{2+}$, Os$^{2+}$, Ni$^{2+}$,} \\$$

Z is
$$SO_4^{2-}$$
, CH_3OO^- , BF_4^- , SF_6^- , Cl^- , Γ , PF_6^- , perchlorate,

n is 1 to 10 000,

m is 2 to 100,

p is a number which corresponds to the charge balance within the polymer,

where the average molecular weight of the polymer is at least 30 000.

- 2. A polymer as claimed in claim 1, wherein A is derived from polyols, polyamines, polyalkanolamines, polyethyleneimines, polyvinylamine and alkoxylates thereof.
- 3. A polymer as claimed in claim 1 or 2, wherein R is in each case 2-pyridyl.
- 4. A polymer as claimed in any of claims 1 to 3, wherein Q is CHR¹-CH₂ where R¹ is H or methyl.
- 5. A process for the preparation of polymers as claimed in any of claims 1 to 4, which comprises introducing non-transition-metal-bridged units of the formula (I), whose charge is balanced by counterions Z, into a solvent, and then reacting them with salts of the metals M with mixing, where the rate of addition of the metal salts is at least 1 mol/s.
- 6. A process as claimed in claim 5, wherein the concentration of the units of the formula (I) in the solvent prior to the reaction with the metal salts is at least 3% by weight, based on the total solution.
- 7. The use of polymers as claimed in one of claims 1 to 4 for increasing the viscosity of liquids.
- 8. The use as claimed in claim 7 for simultaneously imparting color to the liquid.
- 9. The use of polymers as claimed in any of claims 1 to 4 as switchable gelling agents in which the viscosity can be controlled through the addition of complexing agents for the metals M.